



RELEASE BULLETIN
819-095000-336

dBASE II
(MS-DOS VERSION)

Model No: APC-S35M

1.0 INTRODUCTION:

dBASE II software is a database management tool that allows easy manipulation of small and medium sized data bases using English-like commands. With dBASE II you can:

- o create complete data base systems;
- o easily add, delete, edit, display, and print data from your data base;
- o maintain data files with a minimum of data duplication
- o generate reports from one or more data bases, automatically producing subtotals, total, headings, and subheadings
- o create command stacks ("programs") to aid in data entry and retrieval

2.0 CONTENTS OF THE RELEASE:

2.1 Distribution Media

PART NO.	DESCRIPTION
819-076035-050M	dBASE II Diskette

2.2 Documentation

PART NO.	DESCRIPTION
819-095000-336	dBASE II Release Bulletin
819-000100-8001	dBASE II User's Guide

3.0 HARDWARE/SOFTWARE REQUIREMENTS:

3.1 Minimum Hardware Requirements

APC-H01 - Monochrome APC with single FDD

3.2 Minimum Software Requirements

APC-S02 - MS-DOS Operating System

4.0 INSTALLATION PROCEDURE:

PLEASE NOTE:

1. The distribution diskette is already installed for the APC. Therefore the files INSTALL.COM and STARTUP.PRG are not on your distribution diskette.
2. If you will be using a hard disk, refer to the MS-DOS Release Bulletin, Section 6, for instructions on formatting the disk drive.
3. To use the MS-DOS COPY command on a single drive system, you will need to use a CONFIG.SYS file to assign additional disk buffers. To do this:
 - a) Create a file named CONFIG.SYS on your bootable MS-DOS system diskette, using EDLIN or the COPY command. This file must contain the statement:

BUFFERS=10

If CONFIG.SYS already exists on your system diskette, edit it to delete any other BUFFERS= statement, and add the BUFFERS=10 statement.

The most convenient way to create CONFIG.SYS is to use the COPY command to copy from the keyboard to the CONFIG.SYS file as follows: (User input is denoted by lower case, but may be entered in either upper or lower case.)

```
A>copy con config.sys      Press <RETURN>
buffers=10                 Press <RETURN>
Press <CTRL><Z>            Press <RETURN>
      1 File(s) copied
```

A>

- b) Reboot the system diskette. (Press and hold the <FNC> <CTRL> and <BREAK/STOP> keys together, in that order. When the screen clears, release the keys).

Floppy Diskette-Based:

REPLACE the following paragraphs with Chapters 2 and 3 of the dBASE II User's Guide:

1. Formatting Diskettes
 - a) Boot the MS-DOS operating system diskette from drive A.

- b) Enter `FORMAT/S` at the `A>` prompt if you have a single drive system. Enter `FORMAT B:/S` at the `A>` prompt if you have a dual drive system.
- c) At this point, follow the instructions on the screen for inserting a blank diskette into the appropriate drive. If you have a single drive system, be sure to remove the MS-DOS diskette and put a blank diskette into drive A to be formatted.
- d) On a single drive system, remove the blank diskette and reinsert the MS-DOS diskette into drive A and strike any key when ready. In one second, exchange the MS-DOS diskette for the formatted diskette and strike any key when ready.
- e) The diskette is now formatted and the MS-DOS system has been loaded on the blank diskette. This was specified with the `"/S"` entered with the format command.
- f) Refer to the MS-DOS System User's Guide for further information.

2. Making A Backup (Working) Copy

An internal command called `"COPY"` is supplied on the MS-DOS operating system diskette, which will be used to copy files from one diskette to another. Use this command to make a working copy of dBASE II. Then, store the original diskette in a safe place in case the working copy is damaged. Also, use this command (or the `DISKCOPY` utility) periodically to make backup copies of often used diskettes. Refer to the MS-DOS System User's Guide for further information.

To use `COPY`:

- a) Boot the MS-DOS operating system diskette from drive A. Remove the diskette from drive A.
- b) Insert the distribution copy of the dBASE II diskette into drive A. If you have a single drive system, go to step C and the system will prompt you when to insert your formatted diskette into drive A. If you have a dual drive system, insert a formatted diskette into drive B.
- c) Enter the following:

`COPY *.* B:` Press `<RETURN>`

- d) All the files will be copied from the distribution diskette to your dBASE II working copy diskette. At the A> prompt, store the dBASE II distribution copy diskette in a safe place. You will be using your dBASE II working copy diskette from now on. Label the dBASE II working copy diskette.

3. Loading the dBASE II Diskette

To load the dBASE II diskette, turn on the APC and insert the dBASE II working copy diskette into drive A. The following appears as the autostart routine begins (If the date and time are correct, press <RETURN>, else enter the correct date [MM-DD-YY] and time [HH:MM]).

NOTE: The system date/time automatically uses the APC system clock. If you want to change the date/time, either enter new values in response to the autostart routine or use the SET DATE TO <mm/dd/yy> command.

```
MS-DOS version x.xx
Copyright 1981,82,83 Microsoft Corp.
Command v. x.xx
A> echo off
Current date is XXX 99-99-1999
Enter new date:
Current time is 12:01:00.00
Enter new time:
Loading dBASE II...
```

```
The system responds by displaying the message:
Copyright (C) 1982 RSP Inc.
*** dBASE II/86 Ver 2.4 1 July 1983
```

Hard Disk-Based:

REPLACE the following paragraphs with Chapter 2 and 3 of the dBASE II User's Guide:

1. Follow steps 1 through 2 as outlined in the Floppy Diskette-Based section.
2. Use the COPY command (introduced earlier) to copy the complete contents of the dBASE II working copy diskette to the selected hard disk (disk drive E:). Then all the dBASE II execution files will reside on the hard disk.
3. Alter the file AUTOEXEC.BAT on your dBASE II working copy diskette using the EDLIN.COM utility. You need to change the default drive so that the hard disk is used automatically. Insert a new first line to the

AUTOEXEC.BAT file. The first line should read "E:" (the default hard disk drive). Refer to the MS-DOS System User's Guide for further information regarding the EDLIN utility.

5.0 ENHANCEMENTS:

Changes With Impact On Some Existing Systems

1. MEM (memory) files built under previous versions of dBASE II are not compatible with version 2.4. These variables will have to be entered (once) and reSAVED.
2. All overlays and the system message file are now in a single file DBASEOVR.COM.

Enhancements And New Features In Version 2.4

1. A TEXT-ENDTEXT command has been added to assist in generating form letters and other block data applications. This new command can save multiple ?, ??, or @ SAY commands.

EXAMPLE:

```
? "Dear      "+Name
TEXT
                This is an example of the very handy
                new TEXT command in dBASE.
ENDTEXT
?"                Yours truly,"
```

2. It is now possible to use relative screen addressing with @ SAY GET commands.

EXAMPLE:

```
@ 10,20   SAY Address
@ $+2,20  SAY `Good Morning`
@ $,$+2   SAY Name
```

3. RELEASE command can now release subsets of all memory variables.

RELEASE ALL LIKE <skeleton> releases all memory variables that the skeleton masks.

RELEASE ALL EXCEPT <skeleton> does the opposite.

The <skeleton> uses question marks to mask any single character, and an asterisk masks all remaining characters in a memory variable (up to ten of course).

4. SAVE command can save memory variable subsets.

SAVE ALL LIKE <skeleton> to <memory file name> saves all variables whose names are selected by the LIKE <skeleton>.

EXAMPLES:

RELEASE ALL LIKE M* (releases all beginning with M).

SAVE ALL LIKE ? DATE TO DATES (saves MDATE, DBATE, ZDATE, etc.).

5. A HELP command has been implemented. By typing HELP <command> user can get basic information about syntax and usage. This command calls the new file DBASEMSG.TXT which may be edited using a text processor or with MODIFY COMMAND.
6. RANK () function implemented. RANK (<string>) will return the ASCII value of the first character of <string>.
7. INDEX (no operands) indexes current record. Useful after a record is added by APPEND BLANK.
8. REPORT strips high-order bits in form files.
9. CREATE now checks for and prevents duplicate field names.
10. MODIFY STRUCTURE checks for syntactically correct field names.
11. DISPLAY can print semicolons after SET RAW ON.
12. ? and ?? do not put a space between fields after SET RAW ON.
13. REINDEX command rebuilds multiple indexes from scratch using the original key expressions. Index files must have been specified by a USE command or a SET INDEX TO command.
14. File name masking improved to allow X*.* to resemble X????????.*

EXAMPLE:

DISPLAY FILES LIKE INV*.*

15. EDIT, APPEND, CREATE, and INSERT can use format files to format screen with the SET FORMAT TO <file> command. This saves storing input to variables and then REPLACING them to the database file.

EXAMPLE:

```
USE INVOICES
SET FORMAT TO INVFORM
APPEND
(user can just fill in the blanks to add data)
```

16. TYPE function returns a "U" (Undefined) if expression is not parsable, even if a variable's parenthetical comments are syntactically correct.
17. RESET command accepts a drive name and provides protection against open files on the drive as well as empty drives.

EXAMPLE:

```
RESET B
```

18. Errors inside command files will show a traceback of the command files' nesting, called level by level.

EXAMPLE:

```
***SYNTAX ERROR***
DISPLAY MEMRY?
CALLED FROM INPUT.PRG
CALLED FROM ACCOUNTS.PRG
CALLED FROM MAINMENU.PRG
CORRECT AND RETRY (Y/N)?
```

19. After a PACK, dBASE will update all INDEX files currently used with a database. This results in a much speedier PACK and index update process.
20. SET DELETE ON (default is off) makes dBASE ignore all records marked for deletion. All commands, including FIND and LIST, treat deleted records as invisible, except when a command addresses a deleted record by record number.
21. DISPLAY STATUS shows USE database file names, system date, indexes, and their key expressions, as well as the status of all SET parameters.

EXAMPLE:

```
DISPLAY STATUS
DATABASE SELECTED - A:TEST1.DBF
PRIMARY USE DATABASE

INDEXES:                KEY EXPRESSION:
A:TESTNAME.NDX          !(TST:NAME)
A:TESTNMBR.NDX          TST:NMBR

UNSELECTED DATABASE - A:TEST2.DBF
SECONDARY USE DATABASE
```

INDEXES:	KEY EXPRESSION:
A:T2NAME.NDX	!(LAST:NAME)
TODAY'S DATE	- 10/25/83
DEFAULT DISK DRIVE	- A:
ALTERNATE - OFF	BELL - ON
(etc. for all parameters)	

22. UPDATE command can update in random order if USE database is indexed. Also, the REPLACE phrase can replace X with Y so that databases and update databases need not have identically named field names.

Syntax: UPDATE FROM <file> ON <key> [ADD <field list>]
 [REPLACE <field list> or <field> WITH <field list>]
 [RANDOM]

23. RESTORE command can load saved memory variables without releasing the current memory variables using the ADDITIVE phrase.

EXAMPLE:

RESTORE FROM <file.mem> ADDITIVE

24. A new option to the READ command NOUPDATE disables dBASE II from doing a check for changes in index file keys after each READ. Use this command to save time if you know that you will not be altering any index key fields.
25. Trying to open a command or database file that is already open will now give the error FILE IS CURRENTLY OPEN. This will avoid the file stack overflow error and datafile confusion. It is suggested to issue a SET FORMAT TO SCREEN to close any FMT files. Issue a DISPLAY STATUS to view the selected primary/secondary database files, then SELECT PRIMARY/SECONDARY file and USE to close the file(s).

6.0 CAUTIONS:

1. It is recommended that no more than one application package reside on any given floppy, because different application packages may require different soft key setups.
2. SET LINKAGE ON - When the current record pointer reaches EOF on the shorter file, the following message is displayed.

FDD on G: Not Ready
 Type R(Retry), Any Key (CANCEL)

Bdos Err on G: Select

There is no way to correct this at this time. You must reboot.

3. Using the SKIP command with an indexed file to skip beyond the end of file, will not display the "RECORD OUT OF RANGE" error message. Instead the record number and pointer remain on the last record of the index.

Using the SKIP command with a non-indexed file, to skip beyond the end of file, will display the "RECORD OUT OF RANGE" error message. At this point the record number is incorrect and can display erroneous information about the record in use. It is advisable to issue a GO <n>/TOP/BOTTOM command at this time.
4. ?? - using this feature causes the answer to write over the question depending on the length. In this case use of a single ? is suggested.
5. DISPLAY ALL - When the first 15 records are displayed, depending on the number of characters in a record, the first few records are lost due to scrolling.
6. The command QUIT TO <com file list> does not call programs from the system level.
7. Do not issue a MODIFY STRUCTURE immediately after issuing a MODIFY COMMAND <file>. This can cause irrecoverable damage to your diskette.
8. The system default is SET INTENSITY ON. In full screen edit mode, the data entry values will be high- lighted. In color APCs, highlight is red.
9. There are four new SET commands:
SET DELETE ON/OFF (default = OFF)
SET MARGIN TO <n>
SET COLOR TO <n1, n2> (not applicable to the APC)
SET F<n> to <'new value'> (not applicable to the APC)
10. Function keys have not been set for this version. Ignore Appendix I. Use the KEY utility that is distributed with your operating system diskette to set the function keys.
11. <CTRL><X> in full screen edit mode, deletes a character. Use <CTRL><F> to move the cursor down to the next field.

12. If the error message "FILE IS CURRENTLY OPEN" is detected within a command file, the program will abort at that point and exit to the dot prompt. No error message will appear. It is suggested to issue a SET FORMAT TO SCREEN, a DISPLAY STATUS to view the selected primary/secondary database files. Then SELECT PRIMARY/SECONDARY and USE the file in order to close it.
13. To view more details on new/enhanced dBASE II commands that are not mentioned in the dBASE II User's Guide, use the HELP command. The information in the HELP file supersedes the dBASE II User's Guide or Reference Card information.
14. Insert this replacement in the dBASE II User's Guide, page 8-7, BACKUP PROCEDURES:

NOTE: Do not enter a file type extension to the filename. dBASE II automatically appends the file type extension "DBF" to the filename.

Follow these instructions to copy a data file from drive A (with the dBASE II programs) to drive B:

- 1) Insert the formatted backup diskette into drive B.
- 2) USE <filename>
- 3) COPY TO B:<new filename>
- 4) Remove the backup diskette from drive B.
- 5) Take the appropriate action with the original file. This can mean doing nothing, renaming the file, or deleting it.

If the data file is on drive B and you want to copy it to drive A, follow these instructions:

- 1) SET DEFAULT TO B:
- 2) USE <filename>
- 3) COPY TO A:<new filename>

From the operating system level, use the internal command called "COPY", to copy files from one diskette to another. Refer to the MS-DOS System User's Guide for further information.

15. The sample application detailed in Appendix H of the dBASE II User's Guide has been modified. Therefore, the listing in Appendix H will not coincide line by line with the programs on the diskette. It is advisable to print a listing of the program files from the diskette and replace it with the listing in Appendix H.

16. Several utilities are provided on your diskette. Use the HELP UTILITIES command for a more detailed explanation of their use.

SETS.PRG
LABELS.PRG (uses NAMES.DBF)
CREATE.PRG
DATER.PRG.

17. Several sample files are provided on your diskette. Use the HELP EXAMPLES command for a more detail explanation of their use. These examples have been tested, however certain combinations may cause errors to occur.

The master programs are marked with a '>'.

TICKLE FILE MANAGEMENT FILES (CARDFILE)

>CMAIN.PRG	TEXT.DBF	CPRINT.PRG	KEYWORD.NDX
APPECARD.FMT	TICKLE.NDX	TICKLE.FRM	EDITCARD.FMT

CHECKBOOK MANAGEMENT FILES

>CHXMENU.PRG	CHXINPUT.FMT	CHXDEPOS.FMT	CHXBOOK.MEM
CHECKS.DBF	DEPOSIT.DBF		

INVENTORY MANAGEMENT FILES

>IMAIN.PRG	INVENT.DBF	ISETUP.PRG	I'BYNMBR.NDX
INVMAINT.PRG	I'BYDESC.NDX	INVQUAN.PRG	INV'CONS.FRM
INVREAD.PRG	INV'PRTR.FRM	INVRPRT.PRG	

NOTE: To initialize the INVENT.DBF database run command DO ISETUP.

PERSONNEL MANAGEMENT FILES - EXAMPLE 1

>EMAIN.PRG	EMP.DBF	ESETUP.PRG	EMPSCRN.FMT
EMP-ENTR.PRG	EMP-UPD.FMT	EMP-UPD.PRG	EMP-PRT.FRM
EMP-TERM.PRG	EMP-CONS.FRM	EMP-RPRT.PRG	E'BYNMBR.NDX
EMPLOYEE.MEM	E'BYNAME.NDX		

NOTE: The database file used in this example is EMP.DBF (and not EMPLOYEE.DBF). To initialize the EMP.DBF database run command DO ESETUP.

PERSONNEL MANAGEMENT FILES - EXAMPLE 2

>DEMO.PRG	EMPLOYEE.DBF	JOBDET.DBF	UPDATEDM.PRG
VIEWDM.PRG	ADDM.PRG	CHANGEDM.PRG	DELETEDM.PRG
REPORTDM.PRG	REPT1DM.PRG	REPT2DM.PRG	REPT3DM.PRG
MIDFORM.FRM	MIDPOINT.DBF	SALINCR.FRM	DPTNDXDM.NDX
STRUCTX.DBF	TEMPDM.MEM		

NOTE: The database files used in this example are
EMPLOYEE.DBF and JOBDET.DBF.

FORM LETTER GENERATOR/MAILING LABEL FILES

>MAIL.PRG MAIL.DBF MAILENTR.PRG MAILLAB.PRG
 MAILLTR.PRG MAILFMT.FMT MAILINFO.PRG PRINT.TXT

7.0 PROBLEMS FIXED:

1. Multiple indexes - the system will automatically update all indexes when new records are added to a file. Even when the file is used with multiple indexes or the SET INDEX TO command includes an index list.
2. In the APPEND mode with over 23 fields, pressing a carriage return on the first field of the second screen will not terminate record entry.
3. Fixed data corruption when no datum was entered after INSERT command.
4. APPEND and COPY null line problem fixed.
5. APPEND to an empty database dumps no garbage after SET CARRY ON.
6. BROWSE of field with length a multiple of 80 problem fixed.
7. Disabled erroneous <CTRL><T> and <CTRL><N> in BROWSE.
8. TEST function relations problem fixed.
9. If intermediate string (e.g., created by macros) exceeds 255 characters, string concatenation gives error message.
10. GO TO RECORD <n> now positions index file correctly.
11. Internal handling of .AND. stacking fixed.
12. Problem with LOOP occasionally jumping to wrong ENDDO fixed.
13. Null format files no longer create a problem.
14. CANCEL and error handler will now close all open command files.
15. SET ALTERNATE TO (null) does not create an empty .TXT file.

16. RENAME now makes dBASE discard all knowledge of the old filename.
17. Fixed EOF function report after PACK of empty indexed file.
18. PACK now recovers records after system crash by looking for the actual end-of-file.
19. Fixed full screen entry of numeric data when CONFIRM is SET ON.
20. Improved numeric handling in Full Screen Edit mode.
21. Non-full screen EDIT handles coordinates like pre-full screen EDIT (not applicable to the APC).
22. SET LINKAGE ON works with a mixture of indexed and non-indexed databases.
23. SET ESCAPE ON now works with ACCEPT and INPUT commands.
24. DISPLAY STRUCTURE with empty structure causes no problem.
25. DISPLAY FILES LIKE *.* does not interfere with ALTERNATE file.
26. DISPLAY MEMORY properly accounts for logical variable size.
27. TOTAL FOR <condition>, where condition was never true, now fixed.
28. SUM TO <memvar> now allows <memvar> to be 10 characters long.
29. Problem with numeric pictures in SAY command now fixed.
30. TOTAL command with FIELDS phrase documentation corrected. FIELDS phrase does not determine field in the TO file.
31. Null form name aborts REPORT, does not create an empty .FRM file.
32. Syntax error during subtotal expression in REPORT now handled.
33. REPORT handles 14 fields with totaling and subtotaling.

34. CANCEL and ERROR abort resets DO CASE depth gauge.
35. CASE statements in the DO CASE command will now next correctly.
36. MODIFY COMMAND file handling improved.
To exit and keep the changes, press <CTRL><W>.
Press <CTRL><Q> to exit without any changes.
The message "ABORTING MODIFY (Y/N)" appears.
Respond with N to continue editing.
Respond with Y to return to the dot prompt.
37. `MODIFY COMMAD` does not create a file AD.CMD or D.PRG.
38. Obscure data corruption when using SORT on a file with a very rare geometry has been fixed.